BRUHAT BANGALORE MAHANAGARA PALIKE

BILL OF QUANTITIES (BOQ)

Estimate for the Work of Providing & Replement of (400mm dia RCC NP3 Class pipe) UDD Pipe Line at Kodigehalli in Ward No.8 - Kodigehalli

Sl. No.	Approved Qty.	Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
1	241.38	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN ALL KINDS OF SOIL MIXED WITH BOULDERS of 30 cms size, etc. for:Pipes of all dia.	cum	167.00	Rupees One Hundred Sixty Seven Only
	186.19	b) Pipes of all dia. for depth 2.0 to 4.0 M in all types of soils	cum	225.00	Rupees Two Hundred Twenty Five Only
2	48.28	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN DISINTEGRATED ROCK, SOFT ROCK, SOFT SHALE AND MEDIUM HARD ROCK COMPRISING OF LIME STONE, SAND STONE, HARD SHALE, SCHIEST, FISSURED ROCK without resorting to blast etc. for Pipes of all dia. a)For depth upto 2.0 M Note : If any shoring and strutting, will be paid separately(BWSSB SR 17-18 No. 2.1 Code:A055A) Page 51 Considering 15% of Earth work Quantity	cum	404.00	Rupees Four Hundred Four Only
	37.24	b)For depth 2.0 to 4 M Note : If any shoring and strutting, will be paid separately(BWSSB SR 17-18 No. 2.1 Code:A055B) Page 51 Considering 15% of Earth work Quantity	cum	460.00	Rupees Four Hundred Sixty Only
3	32.18	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN HARD ROCK BY CHISTELLING TO PROPER SLOPE etc. for: a) Pipes of all dia. for depth upto 2.0 M Note : If any shoring and strutting, will be paid separately. (BWSSB SR 17-18 No. 2.1 Code:A068A) Page 52 Considering 10% of Earth work Quantity	cum	1487.00	Rupees One Thousand Four Hundred Eighty Seven Only
	24.83	b) Pipes of all dia. for depth 2.0 to 4.0 Mtrs. Note : If any shoring and strutting, will be paid separately. (BWSSB SR 17-18 No. 2.1 Code:A068A) Page 52 Considering 10% of Earth work Quantity	cum	1602.00	Rupees One Thousand Six Hundred Two Only
4	391.05	REFILLING OF EARTH around pipelines, in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering all lead and lift including cost of all labour including consolidation by mechanical means approved by the Engineer in charge, when earth is at suitable moisture content with desired field density upto 95% maximum dry density (modified heavy proctor test) for restoration of roads without settlement including HOM of machineries, complete. (The contractor shall take care while consolidating the earth, so that, pipes laid are not damaged due to mechanical compaction and shall restore the damaged pipes at his own cost, in case of damage) etc. with: Approved earth available nearby, lead upto 100 M and lift upto 1.5 M. Note: In exceptional cases, earth may be obtained from borrow pit with extra lead, duly obtaining approval from the Chief Engineer (BWSSB SR 17-18 No. 14.1 Code:A095A) Page 56	cum	103.00	Rupees One Hundred Three Only
5	45.96	Cutting road surfaces for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the classifications for:Macadam Roa (BWSSB SR 17-18 No. 16.2 Code:A105A) Page 56	cum	859.00	Rupees Eight Hundred Fifty Nine Only
6	27.57	KSRB 4-1.7 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms.thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2	cum	4689.00	Rupees Four Thousand Six Hundred Eighty Nine Only

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISION

Signature of the contractor

Executive Engineer

ved ty.		Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
7	183.90	Providing and installing sheet piling for both sides of the trenches for following depths with mild steel sheets of not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3 inch single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depth as per the approved design drawings, including labour charges for installing and removing the sheet piling at various reaches of sewer line constructions, including loading, unloading, transporting to the suitable location etc. complete with all lead and lifts. (Measurement shall be taken for one side only even though it is provided for both sides).	sqm	531.00	Rupees Five Hundred Thirty One Only
8	200.00	Carting of excavated earth of all types upto a distance mentioned below and re-carting back the earth to the same site by vehicle including loading, unloading charges for to & fro, with all lifts, labour, HOM of machinery etc. complete, after obtaining the approval of the Chief Engineer, for:	cum	335.00	Rupees Three Hundred Thirty Five Only
9	151.85	Disposal off the excess excavated earth of all types by vehicle including loading, unloading with all lead and lifts, labour, HOM of machineries etc. for: Distance of 10 KM (BWSSB SR 17-18 Code:A115E)	cum	243.00	Rupees Two Hundred Forty Three Only
10	178.90	Supplying S&S RCC SPUN / VIBRATED CAST PIPES (REINFORCED) pipes NP-3 Class conforming to IS:458-1988 with latest amendments using ordinary portland cement, for sanitary works and conveying to work site, rolling and lowering into trenches, laying true to line and level including loading and unloading at both destinations and jointing of pipes and specials including cost of specials, perfect linking of joints with jack to correct position including cost of jointing materials, i.e, rubber rings conforming to IS: 5382 for S&S RCC pipes, with all leads and lifts as directed and giving necessary hydraulic test as per ISS to the required pressure and commissioning etc. complete. (Contractor will make his own arrangements for procuring water for testing). Before the execution of the work, the contractor shall carry out the survey and will be paid extra for the same as per seperate item.: RCC NP3 Class pipe of 400 mm dia. (BWSSB SR 17-18 Code:T050B)	cum	1953.00	Rupees One Thousand Nine Hundred Fifty Three Only
11a	1.00	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting,pouring tar over MH frame and cover, cost of tar, shoring, strutting,de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:.**Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 2.0 M depth include SFRC F&C** **(BWSSB SR 17-18 Code:T300M)**	No	30795.00	Rupees Thirty Thousand Seven Hundred Ninety Five Only
11d	1.00	**Depth above 2m and below 3 m (44961-30795) = 14166/-**	m	14166.00	Rupees Fourteen Thousand One Hundred Sixty Six Only
	5.00	**Constructing Brick Masonry Circular Manholes 1.2 m internal dia. & 3.0 M depth include SFRC F&C** **(BWSSB SR 17-18 Code:T300N)**	No	44961.00	Rupees Forty Four Thousand Nine Hundred Sixty One Only

EXECUTIVE ENGINEER-4
CIVIL, BRMP DIVISION
BENGALURU-560 010

Signature of the contractor

Executive Engineer

oved ity.		Description	Unit	Issued to Technical Manager , KRIDL	
				In Figures	In Words
12	183.90	Conducting the level and strip of SURVEY of alignment of Main sewers of required diameter including all data required for generating GIS map of sewer network, preparation and submission of plan and LS with ground level at 30 M intervals and junction points along the centre line of the alignment etc. showing the right of way, any permanent features, culverts, branch sewer pipe etc. complete as per specifications and as directed by the Engineer in charge with all lead and lifts etc. complete for:: **Sewer pipes above 300 mm dia.** **(BWSSB SR 17-18 123.2 Code:T475B)**	RMT	28.00	Rupees Twenty Eight Only
13	183.90	Providing, erecting and removing casurina pole three tier BARRICADING using poles of 7.5 to 10 cms dia. and 1.5M height above ground fixed vertically at intervals of 2.0 to 2.5 M centre to centre and horizontally at 0.5M above ground level, including fixing poles in ground for a maximum depth of 0.3M and tied with coir rope firmly including cost and conveyances of all materials, labour, lead and lifts charges etc. complete.	day	52.00	Rupees Fifty Two Only
15	36.78	KSRRB M400-6.1 : Construction of granular sub-base by providing close graded cushed stone aggregates of granite / trap / basalt material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method For Grading-II Material	cum	2171.90	Rupees Two Thousand One Hundred Seventy One and Ninety Paise Only
16	27.57	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	cum	1667.00	Rupees One Thousand Six Hundred Sixty Seven Only

1. The work should be executed as per the specification and standard specified by the PWD & Other specifications of the Bangalore Mahanagara Palike and as directed.
2. The work should be carried out as per the directions and instructions of the concerned Engineer
3. The Contractor should maintain the quality of work as per the standard specifications.

8/03

Executive Engineer (Byatarayanapura)
Bruhath Bangalore Mahanagara Palike

I am prepared to take up the above work at the rates quoted by me in the Schedule 'B'.

8/03

EXECUTIVE ENGINEER-4
KRIDL, DEMO DIVISION
BENGALURU-560 010

CONTRACTOR